

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 10, line 7, with the following amended paragraph:

Accordingly, one aspect of the invention provides for synthetic peptides of the following formula (formula I):



wherein $[[A]]$ \underline{a} is Ile, Leu, Val or a derivative thereof, $[[D]]$ \underline{d} is Leu, Ile, Val or a derivative thereof, each X is an amino acid residue or derivative thereof which corresponds to an amino acid residue of an epitope of a native coiled-coil protein to form a set of X residues, and n is an integer equal to or greater than 1. Preferably, $[[A]]$ \underline{a} is Ile and $[[D]]$ \underline{d} is Leu in every set of the $(\text{A}\text{X}\text{X}\text{D}\text{X}\text{X}\text{X}\text{a}\text{X}\text{X}\text{d}\text{X}\text{X}\text{X})$ repeat. Preferred values for n are 2 to 100. In a preferred embodiment, n is 2 to 10, most preferably about 3 to 6.

Please replace the paragraph beginning at page 24, line 14, with the following amended paragraph:

We discovered that the stability of the hydrophobic core of a coiled-coil protein may be maximized by incorporation of Ile residues at \underline{a} positions and Leu residues at \underline{d} positions of the heptad repeat. Accordingly, the present invention provides a synthetic peptide comprising formula I:



wherein

$[[A]]$ \underline{a} is Ile or a derivative thereof;

$[[D]]$ \underline{d} is Leu or a derivative thereof;

each X is an amino acid residue or derivative thereof which corresponds to an amino acid residue of an epitope of a native coiled-coil protein;

the X residues in each $(\text{A}\text{X}\text{X}\text{D}\text{X}\text{X}\text{X}\text{a}\text{X}\text{X}\text{d}\text{X}\text{X}\text{X})$ repeat form a set of X residues; and

n is equal to or greater than 1.

Please replace the paragraph beginning at page 50, line 15, with the following amended paragraph:

11. Read the absorbance with an ELISA plate reader at 405 nm at 30 minutes.

The mean O.D. ELISA readings obtained with antisera to the Strep-TT conjugates (20 µg, 10 µg and 5 µg) is shown in Table 2. The Strep-TT conjugate at all three dose concentrations (20 µg, 10 µg and 5 µg) elicited significant antibody titers to the Strep (EIEALKKKIEELSDKIDELEKEIK; residues 4-27 of SEQ ID NO:7) hapten. These antibodies were immunogen specific, as the unconjugated tetanus toxoid did not elicit any antibodies or cross-reactive antibodies to the coiled-coil Strep antigen.

Please replace the paragraph beginning at page 58, line 4, with the following amended paragraph:

12. Read the absorbance with an ELISA plate reader at 405 nm at 30 minutes.

The sequences of the Strep #1, #2 and #3 free peptides used in this inhibition assay are:

Strep #1: Coiled-coil Strep antigen with lactams EIEALKKKIEELSDKIDELEKEIK
(residues 4-27 of SEQ ID NO:7)

Strep #2: Single stranded Strep antigen with lactams EEESDKKDEEDAEKAE (SEQ ID NO:17)

Strep #3: Coiled coil Strep antigen EIEALKKKIEELSDKIDELEKEIK (residues 4-27 of SEQ ID NO:7)